UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/611,957	07/06/2000	Su-Jong Jung	P56147	6538

7590 08/14/2003

Robert E Bushnell
Suite 300
1522 K Street NW
Washington, DC 20005-1202

EXAMINER
LAMB, TWYLER MARIE

ART UNIT	PAPER NUMBER
2622	6

DATE MAILED: 08/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/611,957	Applicant(s) JUNG, SU-JONG	
	Examiner Twyler M. Lamb	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anzai (US 5,223,952).

With regard to claim 1, Yim discloses a process for controlling a transfer voltage in an image forming apparatus (col 1, lines 14-18), the process comprising the steps of: detecting the kind of paper selected by a user (col 5, lines 22-41); editing by reducing the number of pixels of the image data at a certain rate if the detected paper is thick (col 5, line 47 – col 7, line 38); and transmitting the edited image data to the LSU and performing the printing work for the edited image data (col 7, lines 38-49).

Yim differs from claim 1 in that he does not clearly teach the image forming apparatus comprising an electrification roller electrifying a surface of a photosensitive drum, a laser scanning unit ("LSU") forming an electrostatic latent image on the surface of the photosensitive drum, a developing machine making the electrostatic latent image

visible, a transfer roller transferring the image to a recording paper and a fixer fixing the image transferred to the recording.

Anzai discloses an image recording device that includes the image forming apparatus (Figure 1) comprising an electrification roller (charger 2) electrifying a surface of a photosensitive drum (photosensitive drum 1) (col 1, lines 23-25), a laser scanning unit ("LSU") (laser beam 3) forming an electrostatic latent image on the surface of the photosensitive drum (col 1, lines 23-28), a developing machine (developer 4) making the electrostatic latent image visible (col 1, lines 38-41), a transfer roller (transferor 6) transferring the image to a recording paper (col 1, lines 41-45); a fixer (fixer 7) fixing the image transferred to the recording paper (col 1, lines 45-47); and storing within a memory (memory 24) image data to be printed if a print demand is received (col 3, lines 30-36).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Yim to include the image forming apparatus comprising an electrification roller electrifying a surface of a photosensitive drum, a laser scanning unit ("LSU") forming an electrostatic latent image on the surface of the photosensitive drum, a developing machine making the electrostatic latent image visible, a transfer roller transferring the image to a recording paper a fixer fixing the image transferred to the recording; and storing within a memory image data to be printed if a print demand is received; as taught by Anzai. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Yim by the

teaching of Anzai to totally depict the image forming apparatus as taught by Anzai in col 1, lines 23-47.

With regard to claim 2, Yim also discloses wherein the editing step is performed using Econo mode in which the pixels of the light scanned are equally split into an integer number of pixels in order to represent one pixel of the image data, and only a certain number of pixels among the equally split pixels of the light are scanned (col 5, line 47 – col 7, line 38).

With regard to claim 3, Yim also discloses wherein the editing step is performed using Ret mode in which the print area is split into a plurality of small areas, and some pixels among the total pixels for each resolution included in the respective small areas are removed (col 5, line 47 – col 7, line 38).

With regard to claim 4, Yim discloses a process for controlling a transfer voltage in an image forming apparatus (col 1, lines 14-18), the process comprising the steps of: detecting the kind of paper selected by a user (col 5, lines 22-41); decreasing the amount of the light emitted from the LSU at a predetermined rate and performing the printing work (col 5, line 47 – col 7, line 38); and transmitting the edited image data to the LSU and performing the printing work for the edited image data (col 7, lines 38-49).

Yim differs from claim 4 in that he does not clearly teach the image forming apparatus comprising an electrification roller electrifying a surface of a photosensitive drum, a laser scanning unit ("LSU") forming an electrostatic latent image on the surface of the photosensitive drum, a developing machine making the electrostatic latent image

visible, a transfer roller transferring the image to a recording paper and a fixer fixing the image transferred to the recording.

Anzai discloses an image recording device that includes the image forming apparatus (Figure 1) comprising an electrification roller (charger 2) electrifying a surface of a photosensitive drum (photosensitive drum 1) (col 1, lines 23-25), a laser scanning unit ("LSU") (laser beam 3) forming an electrostatic latent image on the surface of the photosensitive drum (col 1, lines 23-28), a developing machine (developer 4) making the electrostatic latent image visible (col 1, lines 38-41), a transfer roller (transferor 6) transferring the image to a recording paper (col 1, lines 41-45); a fixer (fixer 7) fixing the image transferred to the recording paper (col 1, lines 45-47); and storing within a memory (memory 24) image data to be printed if a print demand is received (col 3, lines 30-36).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Yim to include the image forming apparatus comprising an electrification roller electrifying a surface of a photosensitive drum, a laser scanning unit ("LSU") forming an electrostatic latent image on the surface of the photosensitive drum, a developing machine making the electrostatic latent image visible, a transfer roller transferring the image to a recording paper a fixer fixing the image transferred to the recording; and storing within a memory image data to be printed if a print demand is received; as taught by Anzai. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Yim by the

teaching of Anzai to totally depict the image forming apparatus as taught by Anzai in col 1, lines 23-47.

With regard to claim 5, Yim discloses a process for controlling a transfer voltage in an image forming apparatus (col 1, lines 14-18), the process comprising the steps of: detecting the kind of paper selected by a user (col 5, lines 22-41); increasing a developing voltage applied to the developing machine to a predetermined voltage level (col 5, line 47 – col 7, line 38); and transmitting the edited image data to the LSU and performing the printing work for the edited image data (col 7, lines 38-49).

Yim differs from claim 5 in that he does not clearly teach the image forming apparatus comprising an electrification roller electrifying a surface of a photosensitive drum, a laser scanning unit ("LSU") forming an electrostatic latent image on the surface of the photosensitive drum, a developing machine making the electrostatic latent image visible, a transfer roller transferring the image to a recording paper and a fixer fixing the image transferred to the recording.

Anzai discloses an image recording device that includes the image forming apparatus (Figure 1) comprising an electrification roller (charger 2) electrifying a surface of a photosensitive drum (photosensitive drum 1) (col 1, lines 23-25), a laser scanning unit ("LSU") (laser beam 3) forming an electrostatic latent image on the surface of the photosensitive drum (col 1, lines 23-28), a developing machine (developer 4) making the electrostatic latent image visible (col 1, lines 38-41), a transfer roller (transferor 6) transferring the image to a recording paper (col 1, lines 41-45); a fixer (fixer 7) fixing the image transferred to the recording paper (col 1, lines 45-47); and storing within a

memory (memory 24) image data to be printed if a print demand is received (col 3, lines 30-36).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Yim to include the image forming apparatus comprising an electrification roller electrifying a surface of a photosensitive drum, a laser scanning unit ("LSU") forming an electrostatic latent image on the surface of the photosensitive drum, a developing machine making the electrostatic latent image visible, a transfer roller transferring the image to a recording paper a fixer fixing the image transferred to the recording; and storing within a memory image data to be printed if a print demand is received; as taught by Anzai. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Yim by the teaching of Anzai to totally depict the image forming apparatus as taught by Anzai in col 1, lines 23-47.

With regard to claim 6, Yim also discloses wherein the predetermined voltage level is equal to or less than –250 V (col 5, line 47 – col 7, line 38).

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Twyler Lamb whose telephone number is 703 - 308-8823. The examiner can normally be reached on M-TH (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles can be reached on 703-308-4712. The fax phone numbers

for the organization where this application or proceeding is assigned are 703-746-6036 for regular communications and 703-872-9314 for After Final communications.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

or faxed to:

(703) 872-9314
(for informal or draft communications, such as proposed amendments to be discussed at an interview; please label such communications "PROPOSED" or "DRAFT")

or hand-carried to:

Crystal Park Two
2121 Crystal Drive
Arlington. VA.
Sixth Floor (Receptionist)

Twyler Lamb

August 11, 2003